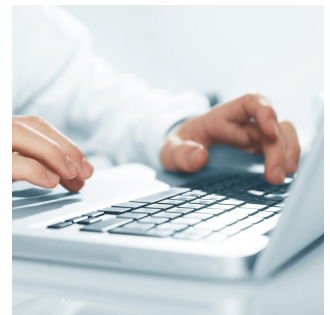

master thesis

Cross-Wedge Rolling of partially heated semi-finished products

Using resources sparingly - increasing efficiency in production technology!

For students interested in mechanical engineering with a focus on simulation and forming technology, this thesis at IPH offers a valuable opportunity. The focus is on cross wedge rolling, an important manufacturing process in hot forging, which is crucial for the production of elongated workpieces such as shafts or axles. The work includes simulative and experimental studies on the partial heating of semi-finished products using induction furnaces. This topic is particularly relevant in industries such as automotive, aerospace and other areas of manufacturing technology.



Your tasks

- Carrying out simulations and experimental investigations with a focus on cross wedge rolling and induction heating.
- Development and optimization of forming simulations and heating strategies for partially heated semi-finished products.
- Determination and evaluation of optimal parameters for the forming process using cross wedge rolling.
- Analysis and influence analysis of partial and inhomogeneous heating.

Your profile

- Advanced Master's degree in mechanical engineering, mechatronics or a comparable course of study.
- Strong interest in simulation techniques and forming technology.
- Good analytical skills and the ability to work both independently and as part of a team.
- Basic knowledge of relevant software tools for simulations is desirable but not required (e.g. Forge NxT, Simufact).
- Very good written and spoken German and good English skills.

We offer

- independent work
- flexible working hours
- well-equipped workplaces
- home office by arrangement
- test execution



Bitte sende deine aussagekräftige Bewerbung in einer einzigen PDF-Datei an jobs@iph-hannover.de.

Die Bewerbung muss Anschreiben, Lebenslauf sowie Prüfungsleistungen des Studiums / Zeugnisse enthalten.

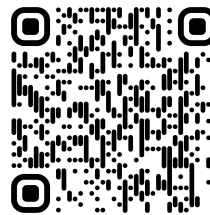
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